Amendments To The Claims:

Please amend the claims as shown.

1 – 18 (canceled)

19. (new) A method for filling material separations at a surface of a substrate or a layer, comprising:

filling the material separation electrolytically with an eddy-current probe that generates oscillations in the region around the material separation and being used in the region of the material separation.

20. (new) The method as claimed in claim 19, wherein the substrate or the layer is electrically connected to an electrode, substrate, or layer and the electrode is arranged in an electrolyte and a current between the substrate and the electrode can be varied over time.

21. (new) The method as claimed in claim 20, wherein the current is pulsed.

22. (new) The method as claimed in claim 20, wherein the parameters of the current are matched to the electrolyte.

23. (new) The method as claimed in claim 20, wherein at least one ultrasound probe is operated in the electrolyte.

24. (new) The method as claimed in claim 19, wherein the frequency of the eddy-current probe is varied during the method.

25. (new) The method as claimed in claim 24, wherein the frequency is matched to a depth of the material separation.

26. (new) The method as claimed in claim 20, wherein the electrolyte includes material of a same type to the material of the substrate or the layer.

27. (new) The method as claimed in claim 20, wherein the electrolyte includes material of a similar type to the material of the substrate or the layer.

28. (new) The method as claimed in claim 19, wherein the material separation is widened in a first method step.

29. (new) The method as claimed in claim 19, wherein a current/voltage pulse is used for the electrolytic deposition, with both positive and negative current/voltage pulses being used.

30. (new) The method as claimed in claim 19, wherein a plurality of repeated current/voltage pulses are combined in a sequence and used for the electrolytic deposition, the sequence of at least two different blocks being used, with a block comprising at least one current pulse.

31. (new) The method as claimed in claim 30, wherein a block is determined by a number of current pulses, pulse duration, interpulse period, current intensity, and pulse shape.

32. The method as claimed in claim 30, characterized in that a block is in each case matched to a constituent of an alloy, in order to boost the deposition of this constituent of the alloy.

33. (new) The method as claimed in claim 19, wherein an alloy of the type MCrAlY is deposited and M is an element selected from the group consisting of iron, cobalt and nickel.

34. (new) The method as claimed in claim 30, wherein gradients are produced in the material composition within the material separation.

35. (new) The method as claimed in claim 21, wherein a base current is superimposed on the current pulses and/or the interpulse periods.

36. (new) An apparatus for filling material separations at a surface of a substrate or a layer, comprising:

a vessel containing an electrolyte;

a voltage source;

an electrode; and

an eddy-current probe that can be placed on the substrate or the layer.

37. The apparatus as claimed in claim 36, wherein the apparatus has an ultrasound probe arranged in the electrolyte.